

Disease Surveillance and Control



Proactive Surveillance: Goals and Objectives

- Provide early and precise information
 - time
 - location
 - virus serotype
 - disease severity
- Predict dengue transmission and guide implementation of control measures
- Link clinical and entomologic surveillance

Vector Control Methods: Chemical Control

- Larvicides may be used to kill immature aquatic stages
- Ultra-low volume fumigation ineffective against secluded adult mosquitoes
- Mosquitoes may have resistance to commercial aerosol sprays

Vector Control Methods: Biological and Environmental Control

■ Biological control

- Largely experimental
- Option: place fish in containers to eat larvae

■ Environmental control

- Elimination of larval habitats
- Most likely method to be effective in the long term

Purpose of Control

- Reduce vector density to a level below which epidemic virus transmission will not occur
- Based on the assumption that eliminating or reducing the number of larval habitats in the domestic environment will control the vector
- The minimum vector density to prevent epidemic transmission is unknown

Programs to Minimize the Impact of Epidemics

- Education of the medical community
- Implementation of emergency contingency plan
- Education of the general population